COMPLEX MULTIPLICATION METHOD AND APPARATUS WITH PHASE ROTATION

ABSTRACT OF THE DISCLOSURE

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A method and apparatus for complex multiplication includes steps of: (a) receiving a complex multiplicand having a real value and an imaginary value (704); (b) generating a negation of the real value of the complex multiplicand (706); (c) generating a negation of the imaginary value of the complex multiplicand (708); 10 (d) receiving a complex multiplier (710); and (e) selecting a phasor constant having a value wherein a complex product of the complex multiplicand times the complex multiplier times the phasor constant has a real value equal to one of the real value of the complex multiplicand, the imaginary value of the complex multiplicand, the negation of the real value of the complex multiplicand, and the negation of the 15 imaginary value of the complex multiplicand (712).